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ABSTRACT

Freshmen often approach research papers by selecting a "giant topic" and going to the library to confront swamps and mountains of resources. A different approach to teaching research is designed to help students begin to shift the often counter-productive paradigm under which they operate. The classroom strategy proposed is 3-fold. Rather than beginning from abstractions, students begin with specific texts about which they generate questions, from which more questions develop and more substantial research projects emerge. If students begin with questions rather than with topics, then they may begin to emulate research as it is truly undertaken by people who use it for their own purposes. Students are asked to read and respond to texts by asking questions about those texts. Questions may be about the literature, the author, the history or culture surrounding the text, or the history or culture surrounding the readers of the text. Students then give a brief 5-part report from one of the questions. From this grows the final part of the process, the research paper itself. With this method, students approach the more substantial and complex research project with better focused ideas and questions and more confidence in their research abilities. (CR)

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# Teaching Freshmen to Understand Research as a Process of Inquiry

I begin with the voices of students in freshmen writing attempting to explain where research fits in to their writing processes:

> *When I write a paper I try to find as much information on the subject as I can. If I'm writing a paper on something of my choice I choose something I'm interested in and not something I want to know more about. If I choose something I want to learn more about I may find out I wish I had never chosen that subject.*

> *I start by making an outline, a big circle with the main idea and little lines coming out of it, like a spider. Then I gather my information according to my outline. I use the outline as a guide. It isn't the master guide because I can't always find the information that I want. There is one building I dread going to, the library!*

> *Once I have chosen a topic I would then break the topic down and decide what I want to tell my reader about the topic. In doing this it helps for me to get my thesis statement down on paper. Once I have my thesis statement I then will do*

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*further research on the topic.*

*Once I've chosen an exciting topic I try to brainstorm all of my thoughts and opinions and I attempt to realize exactly which view or side I will explain or prove, so I won't sound as though I don't really want to take a stand on the issue. Once I've decided which view I possess, I go to the library for my research.*

Freshmen often approach research papers with attitudes that suggest an unhelpful if not counter-productive paradigm of research writing. They typically begin with a Giant Topic (whether chosen by themselves or by a teacher) and then go to the library to confront swamps and mountains of sources. They then sort their sources in several ways: by deciding on a thesis ahead of time, and hunting for quotes to support that thesis (and maybe, a quote or two to stand in for "the other side"), or by picking up the sources that are easiest to find and making do with them, whatever they are, as they take notes and put their papers together, hopefully discovering a purpose, focus, or thesis for their paper along the way (if they haven't decided on one before even beginning to research). In other words, students often plug "research" into their writing process after "invention" and before "drafting." Such strategies have helped the students to survive term papers in the past, but will hamper them as they move through their academic career because they have little in common with the spirit of inquiry that drives mature researchers.

The approach to teaching research that I advocate here is designed to help students begin to shift the paradigm under which they operate. This paper outlines a classroom strategy

for teaching the research paper in such a way that first or second-year college students might begin to internalize for themselves this powerful, flexible, and transferrable understanding of research: we do not undertake research to demonstrate to our teachers our ability to amass long bibliographies and summarize, paraphrase, and quote from them, but rather, we undertake research to answer questions that matter to us and to our readers. (For a guide to research aimed at advanced students that works under this paradigm, see The Craft of Research). The basic strategy I propose is three-fold: Rather than beginning from abstractions, students begin with specific texts about which they generate questions. Instead of going to the library to find all they can about a given topic, they go to find the answer, or an answer, to a specific question. From these answers, more questions develop, and more substantial research projects emerge. If students begin with Questions rather than with Topics, then they may begin to emulate research as it truly undertaken by people who use it for their own purposes.

**Part One:**

To begin with, I do not invite students to select Topics for papers, but rather to read and respond to texts and then begin asking questions about those texts. In a "Critical Writing About Literature" class, the texts were obviously literary, but the questions could be about the literature, or about the author, or about the history or culture surrounding the text, or about the history and culture surrounding readers of the text (opening the door to current as well as historical research projects). For the Freshmen Composition class, the texts were selected to correspond to a specific historical moment in the students' historical "blind spot" (those years that they did not live through, but which were too recent to be in their history texts in high

school -- 1950 - 1970). After finding newspapers and magazines for that date, students developed questions for further research in any area of their choosing: politics, sports, education, science, literature, popular culture, technology.

**Part Two:**

The second step, the "Research Question" assignment, is pivotal for helping freshmen negotiate the messy, involved, recursive process of thinking, reading, researching, and writing, and for helping them understand research as a process of inquiry. Students ask a specific question about a text they've read and discussed. They do not have to find masses of material, nor do they (yet) have to use the source(s) in a complex paper. They simply give me a brief 5-part report:

1. State the research question you began with, and explain why you want to know the answer.

2. Provide a brief narration of your research process.

3. Report on the answer(s) you discovered and any alterations to your question you made along the way.

4. Comment on the credibility of the source you chose to use, and explain what additional research you would do if you were to investigate the question further.

5. Document your source(s).

The research questions introduce students to the library under less threatening conditions and help them through some of the initial roadblocks so many of them encounter there, *and* they lay the groundwork for their more substantial research papers later. When they write these short reports, the students can tell me what they're interested in, how adept

they are at using the library or how anxious they are, and they begin to understand that the goal of research is to answer questions. Students are indeed beginning to practice the research skills we need to be teaching them, but they are doing so in the service of answering a question they have posed. They select sources based on whether or not they are useful for answering the question, rather than on their availability or on their conformity to a pre-determined opinion. Furthermore, because the research questions send them in to and out of the library, writing and thinking as they go, the research process becomes integrated with the writing process, as they begin a dialogue with their sources and with their own assumptions about the questions they are asking.

Here are some samples of students' research questions that demonstrate some of this emerging dialogue between researcher and sources:

> *I began my research for this assignment with the question: in what ways do scientists believe genetic engineering can solve the problem of a lack of heart donors? What advantages can genetic engineering provide for heart transplant patients that the artificial heart cannot? It was important to find this information in order to better understand how much technology has changed since 1969. In addition, the knowledge of this information allows one to ponder the ethical implications of genetic engineering. Should we be tinkering with the building blocks of our humanity? That is to be the focal point of my essay.*

> *What is being done to help prevent violence and crime in the U.S.? . . . I*

*decided that guns are a main tool used in many cases of violence in the U.S., so I came up with this question, "What is being done about gun control in the U.S.?" "Are criminals facing tougher penalties for their crimes?" and "Do the victims have any rights?"*

*Psychology and other behavioral sciences were almost nonexistent in Russia in the 1950s. I was wondering what changes, if any, have come around in Russia since then. How does Russia view Psychology today, in the 1990s? I encountered several problems while conducting my search. First, I couldn't find much information on Psych Lit about Russia after the 1990s. Second, there was only one book that I found on the subject, the one done by [University of Northern Iowa professor] Gilgen. Third, I couldn't get any information on the IAC about Psychology in Russia in the 1990s. Fourth, I have about twenty articles from Psych Lit that I still need to go through and narrow down.*

This student went on to schedule an interview with Gilgen, and her essay evolved from primary as well as secondary research.

*The research question that I began with was "What value would the proposed new Space Station Freedom have for American citizens?" My research process began with [the on-line card catalog] UNISTAR which led me to a variety of government documents about the Space Station Freedom.*

Eventually this student came up with a list of inventions & innovations that would benefit the

public, and made extensive use of government documents, which few freshmen ever discover.

> *What effect did the Gulf War have on the environment? No I did not alter my question in any way. I left it as it was, but I did narrow it down a bit because of how big the subject was. I chose to focus on the effects it had on the sea. [some information summarized] If I was to research this issue further, I could try to look up more environmental problems on UNISTAR or I could get on the CD-ROM and check things out. Other questions I could ask would be: What were the effects on the atmosphere in the Gulf War? How many people and animals died b/c of the pollutants during the Gulf War? What methods were used in cleaning up the mess during the Gulf War?"*

> *My research question was: What was the cost of America's approach to the Cold War? I wanted to find some statistics on defense spending, budget deficits, and nuclear weapon costs from 1957 and the present. [specific numbers found & reported on] I may turn to articles written on the figures for more additional information on their meaning and possible interpretations. Some additional questions might be research additional costs of foreign aid, defense projects like those in NASAs budget, and international defense expenditures. How has defense spending changed? How does it affect the economy? what are the results of changes in defense?*

You can see how the students begin to ask more informed questions about their topics based on the preliminary research called for in the Research Question assignments; questions

that then guide their further research, and their essay organization and development.

**Part 3:**

Part 3 of my teaching strategy is the research paper itself, which grows out of the early work with texts and questions. (At this point in my course, I find many of Bruce Ballenger's suggestions about teaching research to be very helpful.) Students are encouraged to develop one of their research questions for their research paper, and to move from writer-centered research (which is what the research questions are) to reader-centered research and writing. I discuss the research paper in the same language I have used all semester: what questions do you have? how can you answer them? And I begin to integrate another crucial step: why should your readers care about this question? The scope of research broadens to suit the broadened scope of the paper assignment while the driving force behind the research remains the same: what do you want to know? how can you find the answer? how can you interest your readers? how much and what kind of research should you do to answer your question and convince your reader to accept your answer?

At the end of the semester, I ask my students to comment on the elements used in the courses for teaching research (handbook, research questions, library tour, research journal, annotated bibliography, research paper). Only one student in each class who commented on the research questions found them un-helpful; all the rest offered positive, even glowing, reviews of the research question assignment. Students from the Freshmen Composition made the following comments about the research question assignment:

*Helpful for getting paper started and getting ideas for report.*

*Were helpful because I did not have to dive into my research cold. I could briefly*

*explore a topic and its resources and see if they were going to work for me.*

*These helped a lot because if you did those you pretty much had a couple pages written for your paper.*

*These got me searching through my topic for ideas. I didn't use the research questions for the topic of my paper. The sources I found did lead me to a question for my paper.*

*Good idea. Helps to get you started and acquainted with the library.*

*I really liked this because it helped me find a central focus.*

And students in the Critical Writing about Literature class were also positive:

*I was able to develop my research project from one of my questions.*

*The research questions were wonderful in helping me prepare for the research paper.*

*The research questions allow you to do frequent research and made it specific enough for a small paper.*

*Helped us (me) prepare for the bigger paper at the end so I could work through problems beforehand.*

*This one helped because I could do research without worrying about going into great depth. I became more comfortable with doing research.*

*These helped me learn to focus my points and organize them more efficiently.*

*These helped me expand on later. It was fun to research different concepts touched on in the literature. Good approach!*

*I really thought these were beneficial assignments. They're not nearly as stressful as full research papers, so sometimes you are better able to relax and learn more from the*

*process.*

Working with the three-part strategy designed to introduce research as a process of inquiry, students begin to integrate their research process with their thinking and writing processes, practicing a recursive strategy that moves them in to and out of the library and in to and out of the texts and ideas they are studying and writing. They then approach the more substantial and complex research project with better-focused ideas and questions and more confidence in their research abilities. Of course, they practice their note-taking, paraphrasing, summarizing, quoting, integrating, and documenting skills, but they practice with these traditional tools in the service of a lesson that is more profound yet also much more simple: we do research to answer our questions, and we write up research to answer questions for others.

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